

IN THE CLAIMS:

Kindly replace the claims of record with the following full set of claims:

1. (Cancelled).

2. (Currently amended) A method of controlling a plurality of transcoding channels, a transcoding channel allowing an input compressed data signal encoded at an input bit rate to be converted into an output compressed data signal encoded at an output bit rate wherein a regulation process uses quantization scales and the input compressed data signal to determine a video encoding complexity obtain the output bit rate, said method of controlling comprising the steps of:

a step of computing an indicator a weighting factor of a compressed data quality for the respective transcoding channels, said indicator the weighting factor being computed from for a current picture of the input compressed data signal as an average, over a set of preceding encoded pictures, of an average quantization scale over a preceding picture and a number of bits used to encode the same preceding picture; independent of the regulation process,

determining an indicator as function of the transcoding channel video complexity and associated weighting factor; and

a step of allocating the output bit rate to the transcoding channel from a total output bit rate, its corresponding indicator and a sum of the indicators of the transcoding channels, wherein the indicator is computed from an average, over a set of encoded pictures, of a function of an average quantization scale over a picture and a number of bits used to encode the same picture.

3. (Currently amended) A method of controlling a set of transcoding channels as claimed in claim 2, wherein the indicator is computed from the average is a weighted average of a set of the averages calculated over the set of encoded pictures.

4. (Currently amended) A controller for controlling a set of transcoders, a transcoder allowing an input compressed data signal encoded at an input

bit rate to be converted into an output compressed data signal encoded at an output bit rate wherein a regulation process uses quantization scales and the input compressed data signal to determine a video encoding complexity obtain the output bit rate, said controller comprising :

a processor configured to determine an indicator a weighting factor of a compressed data quality for the respective transcoders channel, said indicator the weighting factor being computed for a current picture from the input compressed data signal as an average, over a set of preceding encoded pictures, of an average quantization scale over a preceding picture and a number of bits used to encode the same preceding picture; independent of the regulation process,

determining an indicator as function of the transcoding channel video complexity and associated weighting factor; and

allocate the output bit rate to the transcoder from a total output bit rate, its corresponding indicator and a sum of the indicators of the transcoders, wherein the indicator is computed from an average, over a set of encoded pictures, of a function of an average quantization scale over a picture and a number of bits used to encode the same picture.

5. (Currently amended) A data multiplexing system comprising :

a set of transcoders for converting input compressed data signals encoded at an input bit rate into output compressed data signals encoded at an output bit rate, wherein a regulation process uses quantization scales and the input compressed data signal to determine a video encoding complexity obtain the output bit rate,

a controller for controlling the set of transcoders and comprising:

means for computing a weighting factor of a compressed data quality for the respective transcoders, said indicator the weighting factor being computed from for a current picture of the input compressed data signal as an average, over a set of encoded pictures, of an average quantization scale over a preceding picture and a number of bits used to encode the same preceding picture; independent of the regulation process,

means for determining an indicator as function of the transcoding channel video complexity and associated weighting factor;

means for allocating the output bit rate to the transcoder from a total output bit rate, its corresponding indicator and a sum of the indicators of the transcoders, and

a multiplexer for providing a multiplexed data signal at the total output bit rate by multiplexing of the output compressed data signals, ~~wherein the indicator is computed from an average, over a set of encoded pictures, of a function of an average quantization scale over a picture and a number of bits used to encode the same picture.~~

6. (Currently Amended) A computer program product for a controller that comprises a set of instructions, which, when loaded into the controller, causes the controller to:

compute a video encoding complexity using quantization scales and an input compressed data signal;

compute a factor for a current picture of the input compressed data signal as an average, over a set of encoded pictures, of an average quantization scale over a picture and a number of bits used to encode the same picture,

determine an indicator as a function of the transcoding channel video complexity and associated weighting factor; and

allocate an output bit rate to the transcoding channel from a total output bit rate, its corresponding indicator and a sum of the indicators of the transcoding channels.
carry out the method of controlling as claimed in claims 2 to 3

7. (New)–The computer program product as recited in claim 6, wherein the average is a weighted average of a set of the averages calculated over the set of encoded pictures.